



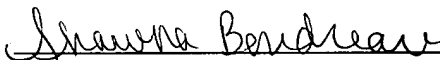
PATENT  
Attorney Docket No. MIT-146  
(5473/167)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Siegel  
SERIAL NO.: 10/632,212 GROUP NO.: 3736  
FILING DATE: July 31, 2003 EXAMINER: Not yet assigned  
TITLE: Measuring Circulating Blood Volume Through Retinal Vasculometry

**CERTIFICATE OF FIRST CLASS MAILING UNDER 37 C.F.R. 1.8**

I hereby certify that this correspondence, and any document(s) referred to as enclosed herein, is/are being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 27th day of April, 2004.

  
Shawna Boudreau

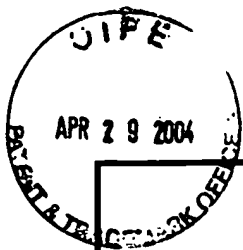
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith are:

1. Transmittal Form (1 pg.);
2. Information Disclosure Statement (2 pgs.);
3. PTO Form 1449 (2 pgs.);
4. references (B1 and C1-C14); and
5. a return-receipt postcard.

3058101



# TRANSMITTAL FORM

Application Serial Number	10/632,212
Filing Date	July 31, 2003
First Named Inventor	Siegel
Group Art Unit	3736
Examiner Name	Not Yet Assigned
Attorney Docket No.	MIT-146 (5473/167)

## ENCLOSURES (check all that apply)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Fee Transmittal Form<br><br><input type="checkbox"/> Check Attached<br><input type="checkbox"/> Copy of Fee Transmittal Form<br><input type="checkbox"/> Amendment/Response<br><br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><br><input type="checkbox"/> Letter to Official Draftsperson including Drawings [Total Sheets ____]<br><br><input type="checkbox"/> Petition for Extension of Time Under 37 CFR 1.136(a)<br><br><input checked="" type="checkbox"/> Information Disclosure Statement<br><br><input checked="" type="checkbox"/> Form PTO-1449<br><input checked="" type="checkbox"/> Copies of IDS Citations B1 and C1-C14<br><br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><br><input type="checkbox"/> Response to Notice to File Missing Parts of Application<br><input type="checkbox"/> Executed Declaration and Power of Attorney For Utility or Design Application | <input type="checkbox"/> Copy of Notice to File Missing Parts of Application (FORM PTO-1533)<br><br><input type="checkbox"/> Formal Drawing(s)<br><br><input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition<br><br><input type="checkbox"/> To Convert to a Provisional Application<br><br><input type="checkbox"/> Power of Attorney (Revocation of Prior Powers)<br><br><input type="checkbox"/> Terminal Disclaimer<br><br><input type="checkbox"/> Executed Declaration and Power of Attorney for Utility or Design Patent Application<br><br><input type="checkbox"/> Small Entity Statement<br><br><input type="checkbox"/> Request for Refund<br><br><input type="checkbox"/> After Allowance Communication to Group | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><br><input type="checkbox"/> Appeal Communication to Group ( <i>Appeal Notice, Brief, Reply Brief</i> ) Status Letter<br><br><input checked="" type="checkbox"/> Return Receipt Postcard<br><br><input checked="" type="checkbox"/> Certificate of First Class Mailing under 37 C.F.R. 1.8<br><br><input type="checkbox"/> Additional Enclosure(s) ( <i>please identify below</i> ) |
|--|--|--|

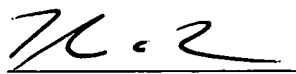
## CORRESPONDENCE ADDRESS

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## SIGNATURE BLOCK

Date: April 27, 2004  
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Respectfully submitted,

  
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PATENT  
Attorney Docket No. MIT-146 (5473/167)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Siegel  
SERIAL NO.: 10/632,212 GROUP NO.: 3736  
FILING DATE: July 31, 2003 EXAMINER: Not Yet Assigned  
TITLE: Measuring Circulating Blood Volume Through Retinal Vasculometry

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

In accordance with the provisions of 37 C.F.R. 1.97 and 1.98, Applicants hereby make of record the patents and publications listed on the accompanying Form PTO-1449, and other information contained herein, for consideration by the Examiner in connection with the examination of the above-identified patent application. In accordance with the U.S. Patent Office's partial waiver of the requirement under 37 C.F.R. 1.98(a)(2)(i), only copies of the foreign patent documents and non-patent publications are enclosed.

REMARKS

In accordance with the provisions of 37 C.F.R. 1.97, this statement is being filed (CHECK ONE):

- ☒ (1) within three (3) months of the **filing date** of a national application other than a continued prosecution application under 37 C.F.R. 1.53(d), or within three (3) months of the **date of entry of the national stage** as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing of the **first Office action** on the merits, or before the mailing of a **first Office action** after the filing of a request for continued examination under 37 C.F.R. 1.114; or
- ☐ (2) after the period defined in (1) but before the mailing date of a **final action** or a **notice of allowance** under 37 C.F.R. 1.311, and
- ☐ the requisite Statement is below, **OR**
- ☐ the requisite fee under 37 C.F.R. 1.17(p), namely **\$180.00**, is included herein, or
- ☐ (3) after the mailing date of a **final action** or **notice of allowance** but before the payment of the **issue fee**, **AND**

- ☐ the requisite Statement is below, **AND**
- ☐ the requisite petition fee under 37 C.F.R. 1.17(p), namely **\$180.00** is included herein.


It is respectfully requested that each of the patents and publications listed on the attached Form PTO-1449, and other information contained herein, be made of record in this application.

#### STATEMENT

As required under 37 C.F.R. 1.97(e), Applicant(s), through the undersigned, hereby state either that [check the appropriate space only if either (2) or (3) is checked on the previous page and the Statement is required]:

- ☐ 1. Each item of information contained in the Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application **not more than three months** prior to the filing of the Information Disclosure Statement; or
- ☐ 2. No item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to **any individual** designated in 37 C.F.R. 1.56(c) **more than three months** prior to the filing of the Information Disclosure Statement.

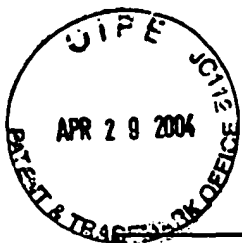
Respectfully submitted,



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Date: April 27, 2004  
Reg. No. 35,722

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Fax No.: (617) 248-7100



FORM PTO - 1449				ATTORNEY DOCKET NO.: MIT-146					
INFORMATION DISCLOSURE STATEMENT				APPLICANT(S): Siegel					
				SERIAL NO.: 10/632,212					
				FILING DATE: 7/31/03		GROUP: 3736			
U.S. PATENT DOCUMENTS									
EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE		
	A1	6,701,169	03/02/04	Denninghoff					
EXAMINER				DATE CONSIDERED					
FOREIGN PATENT DOCUMENTS									
EXAM INIT.		DOCUMENT NUMBER.	DATE	COUNTRY CODE	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG. (Y/N)
	B1	WO 00/65986	11/09/00	PCT			04/28/00		
EXAMINER				DATE CONSIDERED					
OTHER ART, JOURNAL ARTICLES, ETC.									
EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)								
	C1	Denninghoff & Smith, "An Optical Model of the Blood in Large Retinal Vessels" <u>J. Biomed Opt.</u> , <u>5(4)</u> , 371-4 (October 2000).							
	C2	Smith et al., "Retinal vessel oximetry: Toward absolute calibration" <u>Proceedings SPIE Vol. 3908</u> , <u>Ophthalmic Technologies X</u> , Pascal O. Rol; Karen M. Joos; Fabrice Manns; Eds. 217-226 (June 2000)							
	C3	Lompado et al., "Multi-spectral confocal scanning laser ophthalmoscope for retinal vessel oximetry" <u>Spectral imaging: Instrumentation, applications, and analysis</u> , G. H. Bearman, D. Cabib, R. M. Levenson, eds., <u>Proceedings of SPIE Vol. 3920</u> , (2000)							
	C4	Lompado et al., "In-plane scatterometry of a small caliber blood column," <u>Optical Diagnostics of Biological Fluids V</u> , A. V. Priezzhev, T. Asakura, eds., <u>Proceedings Of SPIE Vol. 3923</u> , (2000)							
	C5	Drewes et al., "An Instrument for the Measurement of Retinal Vessel Oxygen Saturation" <u>Optical Diagnostics of Biological Fluids IV</u> , Alexander V. Priezzhev, M. V. Lomonosov, Toshimitsu Asakura, eds., <u>Proceedings Of SPIE Vol. 3591</u> , 114-120 (1999)							
	C6	Smith, Matthew H., "Optimum wavelength combinations for retinal vessel oximetry," <u>Applied Optics</u> , <u>38(1)</u> , 258-267 (January 1999)							
	C7	Smith et al., "Effect of multiple light paths on retinal vessel oximetry" <u>Applied Optics</u> , <u>39 (7)</u> , 1183-1193 (2000)							
EXAMINER				DATE CONSIDERED					

FORM PTO - 1449		ATTORNEY DOCKET NO.: MIT-146	
INFORMATION DISCLOSURE STATEMENT		APPLICANT(S): Siegel	
		SERIAL NO.: 10/632,212	
		FILING DATE: 7/31/03	GROUP: 3736
FOREIGN PATENT DOCUMENTS			
EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)		
	C8	Denninghoff, Smith & Hillman; "Retinal Imaging Techniques in Diabetes" <u>Diabetes Technol Ther.</u> , 2 (1), 111-3 (Spring 2000)	
	C9	Denninghoff et al., "Retinal Venous Oxygen Saturation Correlates with Blood Volume," <u>Academic Emergency Medicine</u> , 5(6), 577-582 (June 1998)	
	C10	Smith et al., "Oxygen Saturation Measurements of Blood in Retinal Vessels During Blood Loss," <u>Journal of Biomedical Optics</u> , 3(3), 296-303 (July 1998)	
	C11	Denninghoff et al., "Retinal Large Vessel Oxygen Saturations Correlate with Early Blood Loss and Hypoxia in Anesthetized Swine," <u>The Journal of Trauma: Injury, Infection and Critical Care</u> , 43(1), 29-34(July 1997)	
	C12	Denninghoff, Kurt, "An Eye Oximeter for Combat Casualty Care," University of Alabama at Birmingham (December 1999)	
	C13	Heaton et al., "Handheld Four-Wavelength Retinal Vessel Oximeter", <u>Progress in Biomedical Optics and Imaging</u> , 1(2), 227-233 (January 2000)	
	C14	Denninghoff et al., "Retinal Venous Oxygen Saturation and Cardiac Output During Controlled Hemorrhage and Resuscitation." <u>Journal of Applied Physiology</u> . 94 (3) 891-896 (March 2003)	
EXAMINER		DATE CONSIDERED	